DOCUMENT RESUME

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ABSTRACT

The procedure described herein entails the use of an educational planning consultant, statements of educational and service problems to be solved by proposed construction, a site plan, and architect selection. Also included in the outline of procedures is a tentative statement of specifications, tentative cost estimates and matrices for conducting space utilization surveys. (GM)

ED037024

STATE OF NEVADA
DEPARTMENT OF EDUCATION

BASIC PLANNING PROCEDURES

Nevada State Department of Education Form S. P. 1 (in 5 parts)* is for use by school district officials and their architects in connection with the selection of sites and preparation of plans and specifications for school plant projects. Information supplied and decisions reached and recorded on these forms, when agreed to by school district and architect and approved by state educational plan reviewing officials, should expedite and make more definite the planning process, and thus improve the working relations of all parties involved. Perhaps its most important use will be the greater assurance given to school district officials that the completed building will reflect accurately the decisions reached during the planning process.

PART I - SCHOOL PLANT SERVICES AVAILABLE FROM NEVADA STATE DEPARTMENT OF EDUCATION lists a series of planning steps to be taken by a school district involving the School Plant Consultant of the Department.

PART II - STATEMENT OF EDUCATIONAL AND SERVICE PROBLEMS is to record the results of a careful educational analysis of school plant requirements in the district, and to indicate how it is proposed to make new facilities serve best the approved educational objectives. This record will serve as the formal basis of understanding of school district objectives among all who participate in the planning process. Copies should be made available to the architect, the State Department of Education, and any other school plant consultants who may be employed by the school district.

PART III - INFORMATION REQUIRED TO BE SUBMITTED FOR APPROVAL OF BASIC PLANS serves as a definition of basic plans. The items listed should appear on plans submitted to the State Department of Education for its approval which is required before final drawings and specifications are undertaken. Plans called for in Part II should be completed before the full payment due the architect under his contract for preliminary plans is made. Completed copies of Part II should be supplied to the architect.

PART IV - TENTATIVE OUTLINE OF BASIC SPECIFICATIONS. The information and decisions called for in Part III should be recorded after consultation involving school district officials, the arthitect and State Department of Education staff. A completed copy of Part III should be considered a part of the set of basic plans defined in Part II and should be supplied to all plan reviewing persons and agencies.

PART V - TENTATIVE ESTIMATE OF PROJECT COSTS should be completed as a result of understandings reached among local school officials and the architect. This document should be completely revised each time a significant change appears in estimated costs or in amounts of money available. This document plays an important part in the relationship of school district and architect and also gives essential information to plan reviewing agencies.

*Copies may be obtained from the State Department of Education, Carson City, Nevada.

EF 001 233

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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STATE OF NEVADA
DEPARTMENT OF EDUCATION

BASIC PLANNING PROCEDURE

PART I - SCHOOL PLANT SERVICES AVAILABLE FROM NEVADA STATE DEPARTMENT OF EDUCATION

To be effective, an educational consultant on school plant problems must be involved at certain definite stages in the planning process. He must have the opportunity always to make his recommendations in writing, and sometimes orally to the school board as well, during the very early stages of the plant planning process.

To be of real service to the district, therefore, it is necessary that the school plant consultant:

(1) Be permitted to give in writing an evaluation of any property proposed to be acquired by the school district either for new sites or for the enlargement of present sites, prior to its acquisition.

(2) Be permitted to examine a fully developed set of preliminary plans, along with a total site utilization plan, and outline specifications that have been prepared by the architect, and to give the district a written evaluation of the plans before the district authorizes the architect to proceed with the final plans and specifications. (This examination is best done in conference with the district superintendent and the district's architect.)

(3) Have opportunities for additional conferences with the superintendent, the architect, or both during the time the architect is preparing the basic plans.

(4) Be permitted to examine the final plans and specifications to determine and report in writing concerning whether or not the final plans reflect adequately the agreements reached in the preliminary plans.

The Department of Education makes the services listed above available upon call to all of the counties of the state. The recommended procedure in obtaining the School Plant Consultant's service is for the county superintendent to confer with the Department of Education and establish a suitable time for the consultant's visit to the county.

Form S.P. 1, Part II

STATE OF NEVADA

DEPARTMENT OF EDUCATION

District _____ Date _____

BASIC PLANNING PROCEDURE

PART II - STATEMENT OF EDUCATIONAL AND SERVICE PROBLEMS TO BE SOLVED BY PROPOSED CONSTRUCTION

(Prepared by school district)

1. Description of proposed building project. (If temporary buildings, so indicate.)

2. Maximum anticipated enrollment on this site.

3. What school and/or community services will be provided new or be improved by proposed construction?

4. Has it been determined by board policy that this project has the highest priority in relation to the total plant needs of the district?

5. State the present grade grouping plan in this district: 1-6, K-6, 1-8, K-8, 1-6 and 7-8, K6-6, K6-3-3, K8-4, K6-4-4, 4-yr. H.S. - other.

6. Is the provision of this project to facilitate the present organization or is it to facilitate a change?

7. Does this project supply all the currently needed plant facilities in this school district? If not, list other needed plant facilities.

8. The governing board has delegated the following individual to work with plan reviewing agencies and the architect on this project:

_____

Name of Official District Representative Title

Signed: _____

Clerk or President, Board of Trustees

Distribution - one copy each to: School District, Architect, Department of Education

AIA Document No. 371

Project Name_____ Architect Candidate_____ Date Submitted_____

STANDARD FORM OF QUESTIONNAIRE FOR SELECTING OF ARCHITECTS FOR SCHOOL BUILDING PROJECTS

(Approved by the National Council on Schoolhouse Construction and the American Institute of Architects and available from AIA, 1735 N.Y. Avenue, N.W. Washington 6, D.C. and from the State Department of Education, Carson City, Nevada)

A. Information by the school system to the architect:

1. Name of school system - - -

5. Names of principals, professional history, professional affiliation, key personnel, staff organization: (Attach information if you prefer.)

- - - -

STATE OF NEVADA

DEPARTMENT OF EDUCATION

District _____ Date _____

BASIC PLANNING PROCEDURE

PART III - INFORMATION REQUIRED TO BE SUBMITTED FOR APPROVAL OF BASIC PLANS

1. SITE PLAN (at suitable scale to show entire property)

Indicate on site plan:

(a) Size and shape of entire site with over-all dimensions.

(b) Approximate number of acres.

(c) Existing and proposed land use zoning.

(d) Adjacent streets, highways, sidewalks, railroads, etc. (Designate major highways, county roads, or residential streets.)

(e) Utilities, such as water, sewer, electrical.

(f) Topographical and soil conditions. When soil borings have been made, locations should be shown. (Engineer's survey is required to be furnished by district.)

(g) Point of compass and data on prevailing and storm winds where significant.

(h) Scale: minimum 1" = 50'0"

(i) Title of project. (If tentative title, so indicate.)

(j) Date of drawings and date of all revisions.

(k) Existing buildings to be demolished (if any).

(l) Existing buildings to remain (if any).

(m) Buildings on adjacent properties within 40 feet of property lines (indicate only).

(n) Existing growth (trees) and natural barriers (rocks, cliffs, streams, etc., if any).

(o) Show complete block layout of proposed new buildings to be constructed and suggested future buildings for a complete site development, generally known as a "Total Site Utilization Plan". Indicate possible future land acquisition.

Distribution: one copy each to - School District, Architect, Department of Education.

(p) Student traffic connection between all buildings.

(q) Show dimensions between buildings and distances from property lines.

(r) Show suggested new walks, existing walks to remain, driveways and paved areas.

(s) Playground areas.

(t) Indicate building area and approximate school capacity for existing buildings and proposed new buildings.

2. FLOOR PLANS OF PROPOSED NEW BUILDINGS IN THIS PROJECT ONLY

(a) Location, sizes and purposes of all rooms, including student capacity of classrooms.

(b) Suggested built-in equipment and casework, chalkboard, tack board, bulletin boards, etc.

(c) Suggested laboratory furniture arrangement (electrical outlets).

(d) Location of all doors, windows and required exit facilities.

(e) Seating capacity of auditorium and library. Evidence of acoustical adequacy.

(f) Seating capacity of cafeteria and number of lunch periods. Evidence of acoustical adequacy. Provision for outdoor service.

(g) Over-all dimensions - Scale: minimum 1/16" = 1'0".

(h) Suggested court layouts in gymnasium, bleachers, etc.

(i) Number and location of toilet bowls (indicate junior bowls in kindergarten, if requested).

(j) Number and location of urinals.

(k) Number and location of drinking fountains and fire hoses.

(l) Number and location of lavatories or wash basins (wash fountains in cafeteria).

(m) Date of drawings and date of all revisions.

3. TYPICAL CROSS SECTIONS (not less than 1/8" = 1'0" scale)

Show typical cross sections through classroom and corridor or covered passages, auditoriums, library, cafeteria, and gymnasium portions of buildings. Indicate on these cross sections:

(a) Approximate clear ceiling heights.

(b) Approximate height of window sills from floor.

(c) Approximate heights of windows including clerestory windows.

(d) Approximate ceiling heights of corridors and covered passages.

(e) Clear widths of corridors.

(f) Approximate heights of finish floors from finish grades.

(g) Date of drawings and date of all revisions.

STATE OF NEVADA

DEPARTMENT OF EDUCATION

District_____ Date_____

BASIC PLANNING PROCEDURE

PART IV - TENTATIVE OUTLINE OF BASIC SPECIFICATIONS
(Prepared by school district and architect)

Submitted by:

_____ _____ _____
Architect Address Telephone

_____ _____ _____
School Name of Building Address

Kind of work: New_____ Rehab. _____ Temporary _____

It is understood that the specification hereinafter outlined may need to be modified before working drawings are presented for final approval.

TENTATIVE OUTLINE OF SPECIFICATIONS
(Type X before each item to be provided)

When educationally significant changes in these tentative specifications are found necessary as planning proceeds, they should be reported when made to the Department of Education in order to expedite action when final plans are presented for approval.

1. Type of Construction:

_____

2. Roof covering:

_____ Gravel

_____ Tile

_____ Composition

_____ Composition shingles

_____ Tile shingles

3. Type of windows:

_____ Double hung

_____ Awning type

_____ Casement

_____ Steel

_____ Wood

_____

Distribution - one copy each to: School District, Architect, Department of Education, State Planning Board

4. Kind of glass:

_____

_____

_____

5. Daylight control in instruction areas:

_____ Venetian blinds

_____ Window shades

_____ Fixed louvers

_____ Adjust. louvers

_____ Darkening shades

_____

6. Room finishes:

Floors

_____ Hardwood

_____ Asphalt tile

Indicate type _____

_____ Cement

_____ Linoleum

_____ Terrazzo

_____

Walls

_____ Sand finish plaster

_____ Smooth finish plaster

_____ Plywood

_____

Ceilings

_____ Smooth finish plaster

_____ Sand finish plaster

6. Room finishes (continued)

Ceilings (continued)

_____ Fibreboard

_____ Acoustical

_____

Wainscots

_____ Sand finish plaster

_____ Smooth finish plaster

_____ Plywood

7. Chalkboard:

_____ Composition

_____ Slate

Color_____

8. Tackboard

_____ Fibreboard

_____ Cork carpet

_____

9. Acoustical treatment:
(kind and where used)

_____

_____

10. Paint or surface finish schedule
Give approximate reflection factors

Exterior walls _____

Corridor walls _____

Corridor ceilings _____

Classrooms:

Ceilings _____

Wainscots _____

10. Paint or surface finish schedule: (continued)

Classrooms: (continued)

Casework _____

Walls _____

Trim _____

Floors _____

11. Main toilet room finish materials:

Floors _____

Walls _____

Wainscots _____

Ceilings _____

12. Heating systems:

_____ Panel heating system

_____ Gas radiators

_____ Hot air blower units

_____ Central steam plant

_____ Electric heating system

_____

13. Ventilating system:

_____ Mechanical

_____ Natural

14. Cooling system:

_____

15. Electrical work:

Wiring:

Rigid conduit _____ EMT _____

15. Electrical work (continued)

Wiring (continued)

_____ Underground service

_____ Overhead service

_____ Conduit for public

_____ Outlets at life science student stations

_____

Provisions for future additions:

_____ Space in service conduit

_____ Space for expansion of main panel

_____ Conduit stubs for future expansion

_____

Conduit switching classrooms:

_____ All lights on one switch

_____ Inside wall lights and outside wall lights switched in groups separately

_____ _____

Lighting fixtures for classrooms:

_____ Incandescent

_____ Direct

_____ Semi-direct

_____ Indirect

_____ (type)

Fluorescent:

_____ Bare lamps

_____ Shield lamps

15. Electrical work (continued)

Fluorescent (continued)

_____ Troffers

_____ Indirect

_____ Height from floor

Estimated foot candle intensity:

_____ Classrooms

_____ Enclosed corridors

_____ Administrative offices

_____ Auditorium

_____ Gymnasium

_____ Cafeteria

_____ Library

_____ Shops

_____ Sewing rooms

_____ Drawing and art rooms

_____

16. Specials items contemplated

	Conduit only	Conduit and wiring	Complete with equipment
Audio visual aids	_____	_____	_____
Photo-cell control	_____	_____	_____
Program clock system	_____	_____	_____
Program bell system	_____	_____	_____
Fire alarm system	_____	_____	_____
Public address system	_____	_____	_____
Inter-phone system	_____	_____	_____
Border lights	_____	_____	_____
Footlights	_____	_____	_____

16. Special items contemplated (continued)

	Conduit only	Conduit and wiring	Complete with equipment
Dimmers	_____	_____	_____
P. A. system for auditorium	_____	_____	_____
M. P. sound wiring in auditorium	_____	_____	_____

Water supply

_____ Water main

_____ Well

_____ Pneumatic pressure tank

_____ Elevated tower

_____

Sewage disposal

_____ Sanitary sewer

_____ Septic tank

_____ Overflow to cesspools

_____ Direct into cesspools

_____ Field drain lines

Has the system been approved by the Division of Public Health Engineering of the State Department of Health?

_____ Yes _____ No

Cafeteria contemplated equipment

_____ Refrigerator

_____ Range

_____ Power mixer

_____ Power vegetable peeler

_____ Bake ovens

_____ Steamer

_____ Dishwasher

_____ Steam table

Has cafeteria layout been approved by the Supervisor of the School Lunch Program, State Department of Education?

_____ Yes _____ No

List below or attach a separate statement covering specifications for other special features included in the project, such as auditorium, gymnasium, cafeteria, shops, etc., or any further detailed information relative to the items listed.

Signed: _____
Architect

Nevada state license number _____

Date _____

APPROVED:

_____
Nevada State Department of Education

By: _____

Date _____

Board of Trustees

_____ School District

By: _____

Date _____

STATE OF NEVADA

DEPARTMENT OF EDUCATION

District _____ Date _____

BASIC PLANNING PROCEDURE

PART V - TENTATIVE ESTIMATE OF PROJECT COSTS
(Prepared by school district and architect)

Submitted by: _____ _____
Architect School

Kind of work: New _____ Rehab. _____ Temporary _____

1. Estimated construction cost:

A. Construction project as a whole _____ sq. ft. @ $_____ $_____ $_____
B. Estimated construction cost by building area types (classrooms, auditoriums, cafeterias, etc.)

a.	_____	_____	sq. ft. @ $_____	$_____
b.	_____	_____	sq. ft. @ $_____	$_____
c.	_____	_____	sq. ft. @ $_____	$_____
d.	_____	_____	sq. ft. @ $_____	$_____
e.	_____	_____	sq. ft. @ $_____	$_____
f.	_____	_____	sq. ft. @ $_____	$_____
g.	_____	_____	sq. ft. @ $_____	$_____
h.	_____	_____	sq. ft. @ $_____	$_____
i.	_____	_____	sq. ft. @ $_____	$_____
j.	_____	_____	sq. ft. @ $_____	$_____

(1) subtotals for construction cost _____ sq. ft. $_____

2. Estimated construction costs of site development:

		Quantity		Unit Cost	Total
a.	Grading	_____	yds.	_____	_____
b.	"A. C." paving	_____	yds.	_____	_____
c.	"P. C." paving	_____	yds.	_____	_____
d.	Curbing	_____	lf	_____	_____
e.	Benches	_____	lf	_____	_____
f.	Fencing	_____	lf	_____	_____
g.	Drainage				
	(a) Pipe	_____	lf	_____	_____
	(b) Sewer	_____	lf	_____	_____
h.	Electrical	_____	lf	_____	_____

Distribution - one copy each to: School District, Architect, Department of Education, State Planning Board

3. Architect's or engineer's fee (_____%) $_____
4. Nevada State Planning Board _____
5. Clerk of the works or inspector's salary (___months @ $____)
6. Material and/or soil tests costs _____
7. Engineer's topographical survey _____
8. Furniture and equipment _____
9. Site: purchase of _____
10. Insurance during construction _____
11. Contingencies _____
12. Other costs _____
13. Total (estimated project cost) _____

14. Method of financing

District funds:

Current budget funds $_____

Bond funds (voted _____) _____
date

Building reserve _____

Other funds _____

15. Comments:

Signed: _____ Date _____
Architect

REVIEWED:

_____
State Department of Education

By: _____

Date _____

APPROVED:

_____
Governing Board of _____ District

By: _____

Date _____

_____ School District

_____ School

STATE OF NEVADA
DEPARTMENT OF EDUCATION

FORM S.P. 2 - PART I

Date _____

SPACE ADEQUACY SURVEY

PUPIL-PERIOD ENROLLMENT

(1)	(2)	(3)								(4)	(5)	(6)
Name of Teacher	Course Title	Enrollments by Period								Pupil Enrollment (Col. 3 total)	No. of Classes Reported on Each Line	Average Class Size (Col. 4 ÷ Col 5)
		1	2	3	4	5	6	7	8			
TOTAL PERIOD ENROLLMENTS												

(Transfer these totals to Part II)

Course Title

Page No.

_____ School District

_____ School

STATE OF NEVADA
DEPARTMENT OF EDUCATION

FORM S.P. 2 - PART II - PAGE 1

Date _____

SPACE ADEQUACY SURVEY

PUPIL-PERIOD ENROLLMENT CHART
(School Summary Sheet by Departments)

GRAND TOTAL PERIOD ENROLLMENTS: _____
Part I, Column #4

(1)	(2)								(3)	(4)		(5)	(6)
School Subjects	Total Department Enrollments - from Part I								Total Pupil Enrollment Col. 4, Part I	% Col. 3 is of Grand Total Enrollment		No. Classes Reported Col. 5, Part I	Average Class Size Col.3 ÷ Col.5
	1	2	3	4	5	6	7	8		Actual	Adj.		
English													
Lang. (Academic)													
Mathematics													
Social Studies													
Speech - Drama													
Language (Lab.)													
Chemistry													
Physics													
Gen'l. Science													
Electronics													
Biology													
Botany, Zoology													
Health													

SPACE ADEQUACY SURVEY

PUPIL-PERIOD ENROLLMENT CHART
(School Summary Sheet by Departments)

(1)	(2)								(3)	(4)		(5)	(6)
School Subjects	Total Department Enrollments - from Part I								Total Pupil Enrollment Col.4, Part I	% Col.3 is of Grand Total Enrollment		No. Classes Reported Col.5, Part I	Average Class Size Col.3 ÷ Col.5
	1	2	3	4	5	6	7	8		Actual	Adj.		
Typing													
Shorthand													
Bookkeeping													
Gen. Business													
Bus. Machines													
Agriculture													
Agriculture (Lab.)													
Wood Shop													
Metal Shop													
Auto Mechanics													
Mechanical Drawing													
Art													
Crafts													
Driver Training													
Library													

S P A C E A D E Q U A C Y S U R V E Y

PUPIL-PERIOD ENROLLMENT CHART
(School Summary Sheet by Departments)

(1)		(2)								(3)	(4)		(5)	(6)
School Subjects		Total Department Enrollments - from Part I								Total Pupil Enrollment Col.4, Part I	% Col.3 is of Grand Total Enrollment		No. Classes Reported Col.5, Part I	Average Class Size Col.3 ÷ Col.5
		1	2	3	4	5	6	7	8		Actual	Adj.		
Home Economics														
Family Life														
Machine Shop														
Music	Band													
	Choral													
Journalism														
Orientation														
Distributive Ed.														
Study Hall														
GRAND TOTAL														

STATE OF NEVADA
DEPARTMENT OF EDUCATION

FORM S.P. 2 - PART III - PAGE 1

S P A C E A D E Q U A C Y S U R V E Y

_____ County School Dist.
_____ School
_____ *

1. Predicted Enrollment _____ _____
2. Present Enrollment _____ (date)
3. Predicted Increase _____
4. Working Factor (line 1 ÷ line 2) _____

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SCHOOL SUBJECTS	Current Pupil-Period Enrollment Col. 3-Pt. II	Average Class Size District Policy	Class Grp. Required (Col. 2 ÷ by Col. 3)	Class Groups Required for Predicted Enrl. (Col. 4 times Working Factor)	Teaching Space Needs Computed for Predicted Enrollment (Col. 5 ÷ *)	Teaching Space Needs Adjusted by Conference	No. of Adeq. Teaching Spaces Now Available	No. of Addnl Teaching Spaces Recommended to District
English								
Languages (Academic)								
Mathematics								
Social Studies								
TRANFERS FROM OTHER DEPTS. TO ACADEMIC:								
A C A D E M I C S U B - T O T A L								
Speech - Drama								
Lang. Laboratory								
Chemistry								
Physics								
Gen'l. Science								
Electronics								
Biology								
Botany, Zoology								
Health								

* - No. of teaching periods in daily schedule

S P A C E A D E Q U A C Y S U R V E Y

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SCHOOL SUBJECTS	Current Pupil-Period Enrollment Col. 3-Pt. II	Average Class Size District Policy	Class Grp. Required (Col. 2 ÷ by Col. 3)	Class Groups Required for Predicted Enrl. (Col. 4 times Working Factor)	Teaching Space Needs Computed for Predicted Enrollment (Col. 5 ÷ *)	Teaching Space Needs Adjusted by Conference	No. of Adeq. Teaching Spaces Now Available	No. of Addn Teaching Spaces Recommended to District
Typing								
Shorthand								
Bookkeeping								
Gen. Business								
Bus. Machines								
Agriculture								
Agriculture Laboratory								
Wood Shop								
Metal Shop								
Auto Mechanics								
Mechanical Drawing								
Art								
Crafts								
Driver Training								
Library								

S P A C E A D E Q U A C Y S U R V E Y

(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SCHOOL SUBJECTS		Current Pupil-Period Enrollment Col. 3-Pt. II	Average Class Size District Policy	Class Grp Required (Col. 2 ÷ by Col. 3)	Class Groups Required for Predicted Enrl (Col. 4 times Working Factor)	Teaching Space Needs Computed for Predicted Enrollment (Col. 5 ÷ *)	Teaching Space Needs Adjusted by Conference	No. of Adeq. Teaching Spaces Now Available	No. of Addnl. Teaching Spaces Recommended to District
Home Economics									
Family Life									
Machine Shop									
Music	Band								
	Choral								
Journalism									
Orientation									
Distributive Education									
Study Hall									
GRAND TOTAL									